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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,012	11/03/2003	Detlef John	JOHN	3679

20151 7590 05/25/2006

HENRY M FEIEREISEN, LLC  
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NEW YORK, NY 10118

EXAMINER
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MUROMOTO JR, ROBERT H

ART UNIT	PAPER NUMBER
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3765

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/700,012

Applicant(s)

JOHN ET AL.

Examiner

Robert H. Muromoto, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall '650 in view of Buchanan 3,143,150.

Pall teaches a method of forming perforate metal sheets useful in filter applications. The invention contemplates the formation of a rigid perforate metallic sheet by preparing in a weaving operation a plain or square weave mesh using metallic filaments. The wire mesh should be stabilized as to the relative positions of the metallic filaments. In the case of a simple square weave in which both the warp and weft filaments are equally spaced, the initial stabilization of the weave pattern can be effected by integrating the interwoven filaments at the crossover points by sintering (col. 4, lines 21-32).

Additionally, the fabric in Pall is subjected to further pressure application processes that reduce the thickness of the fabric by 5 to 65%. This pressure equates to a constriction force on the weft filaments as well, as recited in claims 2 and 4.

The embodiment in example A, discloses a filament having a .0013in diameter. Upon conversion to millimeters, .0013in = .03302 mm. .03302mm is well within the ranges recited in claims 3, 6 and 7.

Example A, also discloses a 325 X 325 mesh weave. 325 wires per inch is clearly within the range recited in claim 8.

Pall also discloses an embodiment that would be extremely thin, where a 200 x 1500 wire mesh is produced from warp wires .0029 in and weft wires .0013 in (col. 5, lines 70-750). The 1500 wires per inch corresponding the weft, this weft density clearly within the range recited in claim 9. And the diameters disclosed clearly providing the limitations recited in claim 5.

With regards to the "using a cold-forming technique", the material in Pall is said to be rolled as well as sintered. Rolling does not use heat and is therefore equivalent to a "cold-forming technique". Also the claim is in 'comprising' format so the reference can encompass other limitations as long as it teaches the claimed limitations of the instant invention. Additionally, this limitation is a product-by-process limitation. The MPEP states, "the lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section

**103 of the statute is eminently fair and acceptable.** As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Pall teaches all of the limitations listed above of the claimed invention, and therefore clearly Pall has been shown to be "either identical or only slightly different" as required by the MPEP.

Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

Although Pall teaches essentially all of the limitations of the claimed invention, Pall does not specifically teach the requirement that the weft yarn diameter be equal or greater than the shortest distance between adjacent warp yarns of the fabric. Pall does teach different embodiments of fabric using different weaving parameters and size of materials to attain some material difference in the final product. Also weaving in general, is known to make use of various materials, dimension of materials, and weaving parameters to affect various resulting properties of the fabric to be produced.

As evidence, the examiner cites Buchanan '150, drawn to a Fourdrinier fabric. Fourdrinier fabrics are metallic, twill woven fabrics that are constructed with specific

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filtrations characteristics for use in papermaking applications. The instant invention and Pall are also fabrics woven with specific filtration characteristics and therefore all three are clearly within the same problem-solving field of technology.

Buchanan teaches that, "the open area of the woven fabric can be controlled by the weaver by controlling the size of the warp and weft threads and by the number of weft threads in the fabric. Thus assuming a given number of warp threads per inch (indirectly proportional to so-called 'shortest distance between warp wires') of a given diameter, the weaver can control the open area of the finished fabric by choosing the proper diameter weft thread and by choosing the proper number of weft threads per inch..." Since the instant invention gives no unexpected results from the specific weft dimension used based on the given warp spacing of the fabric, the teaching from Buchanan teaches that it would have been obvious to one of ordinary skill in the wire filter fabric forming arts to modify the weft yarn diameter of a filter fabric in relation to the warp spacing of the fabric to control the open area of the fabric and ultimately the filtration characteristics of the finished filter fabric.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Muromoto, Jr. whose telephone number is 571-272-4991. The examiner can normally be reached on 8-530, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 703-305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Bobby Muromoto

Patent examiner

May 23, 2006

A handwritten signature in black ink, appearing to be 'B. Muromoto', written over the date.